



## PATENT ABSTRACTS OF JAPAN

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**G01R 31/02**(21) Application number: **05032820**(71) Applicant: **FUJI ELECTRIC CO LTD**(22) Date of filing: **28.01.93**(72) Inventor: **SUZUKI NOBUO****(54) FAILURE DETECTOR OF RECEIVING  
TRANSFORMING STATION**

receiving device, so that detection is conducted as a failure.

**(57) Abstract:**

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**PURPOSE:** To surely detect the failure of a receiving transforming station without receiving the influence of noise by using an optical fiber.

**CONSTITUTION:** An optical fiber 3 is arranged in the side face of a conductor 1 facing another conductor 2 between the conductor 1 of a main circuit charge part in a receiving transforming station and the conductor of another phase in parallel therewith or grounding metal 2. Constitution is performed in that the optical fiber 3 consists of a core 3a and coating 3b of its circumference, an end of the optical fiber 3 is connected to an emission device, the other end thereof is coupled to a light receiving device respectively, a light flux emitted from the emission device passes through the optical fiber 3 and reaches the light receiving device. When a failure occurs and an arc 5 produces between the conductor of the other phase or the grounding metal 2 and the conductor 1, the optical fiber 3 is fused by arc heat at a production part 4 of the arc 5, broken thereat and thereby the light flux passing through the optical fiber 3 is blocked at the arc production part 4 and not detected with the light

